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The Synthesis and Structural Characterization of Carborane Derivatives
Containing Main Group and f-Block Elements

by

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<p>The synthesis, X-ray structural characterization, and reactivity of a number of novel metallacarborane compounds including those that exhibit n^5-dicarbollide ligands bound to aluminum, silicon, and 4f-block elements are discussed. These compounds include the first sandwich compounds to contain main group elements in their highest formal oxidation states, $[\text{commo-3,3'}\text{-M(3,1,2-MC}_2\text{B}_9\text{H}_{11})_2]^{n-}$ ($\text{M} = \text{Al}, n = -1; \text{M} = \text{Si}, n = 0$), and the first examples of lanthanacarboranes, $\text{closo-C}_2\text{B}_9\text{H}_{11}\text{Ln(THF)}_4$ ($\text{Ln} = \text{Sm}, \text{Yb}$) and $[\text{3,3-(THF)}_2\text{-commo-3,3'}\text{-Sm(3,1,2-SmC}_2\text{B}_9\text{H}_{11})_2]^-$.</p>				
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THE SYNTHESIS AND STRUCTURAL CHARACTERIZATION OF
CARBORANE DERIVATIVES CONTAINING MAIN GROUP AND
f-BLOCK ELEMENTS

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Abstract The synthesis, X-ray structural characteriza-
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are discussed. These compounds include the first sandwich
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